

CLAIMS

1. A method of determining a number of plates to be used to print a predetermined number of labels, each plate having a fixed number of label positions to allow the simultaneous printing of a plurality of labels with the same or different data comprising:
  - 5 determining a minimum number of plates to print the predetermined number of labels;
  - determining a total number of times that each of the plates must be run to print the predetermined number of labels; and
  - 10 comparing the total run time number to a reference to determine whether to increase the number of plates.
2. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 1 wherein the reference number is a function of the predetermined number of labels to be printed and the fixed number of label positions on a plate.
3. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 1 wherein the minimum number of plates is determined based on the number of different label types and the fixed number of label positions on a plate.
4. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 1 wherein the step of determining the total number of times that each of the plates must be run includes determining a number of label positions on at least  
5 one plate to be used for printing labels with the same data.
5. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 4 wherein a

quantity of labels with the same data can be printed by splitting the quantity between two or more plates.

5 6. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 1 including increasing the number of plates based on the comparing step; determining a new total number of times that each of the increased number of plates must be run to print the predetermined number of labels; and comparing the new total to the previously determined total to determine whether to increase or decrease the number of plates.

7. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 6 wherein the comparing step determines whether the new total is within a predetermined range of the previously determined total.

5 8. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 6 wherein the range represents an approximate cost of a plate relative to an approximate cost of a sheet of material on which the fixed number of labels are printed using a plate.

5 9. A method of determining a number of plates to be used to print a predetermined number of labels, each plate having a fixed number of label positions to allow the simultaneous printing of a plurality of labels of the same or different type where labels of the same type have the same data printed thereon comprising:

determining a minimum number of plates to print the predetermined number of labels based on the number of different label types to be printed;

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10 determining for each different label type a number of label positions on at least one plate to be used for printing the labels of that type;

determining a total number of times that each of the plates must be run to print the predetermined number of labels; and

15 comparing the total run time number to a reference to determine whether to increase the number of plates.

10. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 9 wherein the reference number is a function of the predetermined number of labels to be printed and the fixed number of label positions on a plate.

11. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 10 wherein the comparing step determines whether the total run time number is within a predetermined range of the reference.

12. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 11 wherein the range represents an approximate cost of a plate relative to an approximate cost of a sheet of material on which the fixed number of labels are printed using a plate.

13. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 9 wherein the minimum number of plates is equal to the number of different label types to be printed divided by the fixed number of label positions on a plate.

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14. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 9 wherein a quantity of labels with the same data can be printed by splitting the quantity between two or more plates.

15. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 9 including increasing the number of plates based on the comparing step; determining a new total number of times that each of the increased  
5 number of plates must be run to print the predetermined number of labels; and comparing the new total to the previously determined total to determine whether to increase or decrease the number of plates.

16. A method of determining a number of plates to be used to print a predetermined number of labels, each plate having a fixed number of label positions to allow the simultaneous printing of a plurality of labels of the same or different type where labels of the same  
5 type have the same data printed thereon comprising:

receiving an order to print a plurality of labels including labels of different types, the order identifying a quantity to be printed for each different type of label;

determining a minimum number of plates to print the  
10 predetermined number of labels based on the number of different label types to be printed;

determining for each different label type a number of label positions on at least one plate to be used for printing the labels of that type;

15 determining a total number of times that each of the plates must be run to print the predetermined number of labels; and

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comparing the total run time number to a reference to determine whether to increase the number of plates.

17. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 16 wherein the reference number is a function of the predetermined number of labels to be printed and the fixed number of label positions on a plate.

18. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 17 wherein the comparing step determines whether the total run time number is within a predetermined range of the reference.

19. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 18 wherein the range represents an approximate cost of a plate relative to an approximate cost of a sheet of material on which the fixed number of labels are printed using a plate.

20. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 16 wherein the minimum number of plates is equal to the number of different label types to be printed divided by the fixed number of label positions on a plate.

21. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 16 wherein a quantity of labels with the same data can be printed by splitting the quantity between two or more plates.

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22. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 16 including increasing the number of plates based on the comparing step; determining a new total number of times that each of the increased  
5 number of plates must be run to print the predetermined number of labels; and comparing the new total to the previously determined total to determine whether to increase or decrease the number of plates.

23. A method of determining a number of plates to be used to print a predetermined number of labels, each plate having a fixed number of label positions to allow the simultaneous printing of a plurality of labels of same or different types comprising:

5 determining a minimum number of plates to print the predetermined number of labels;

calculating a first value representing an estimated production cost based on the minimum number of plates;

10 increasing the number of plates to be used to print the predetermined number of labels;

calculating a second value representing an estimated production cost based on the increased number of plates; and

comparing the first and second values to determine the number of plates to be used.

24. A method of determining a number of plates to be used to print a predetermined number of labels as recited in claim 23 wherein the first value represents the total number of times that each plate of the minimum number must be run to print the predetermined number of  
5 labels.

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5        25.     A method of determining a number of plates to be used to  
print a predetermined number of labels as recited in claim 23 wherein  
the second value represents the total number of times that each plate of  
the increased number must be run to print the predetermined number of  
labels.

26.     A method of determining a number of plates to be used to  
print a predetermined number of labels as recited in claim 23 wherein  
the comparing step determines whether the second value is within a  
predetermined range of the first value.

5        27.     A method of determining a number of plates to be used to  
print a predetermined number of labels as recited in claim 26 wherein  
the range represents an approximate cost of a plate relative to an  
approximate cost of a sheet of material on which the fixed number of  
labels are printed using a plate.